# The Next Steppe:

# Sage-grouse and Rangeland Wildfire in the Great Basin

*Biographies and Abstracts*

## Moderators and Speakers (in order of the conference agenda)

**Wednesday, November 5**

### Jesse Juen

Call to Order
November 5, 8:00-8:05 a.m.

Jesse Juen started his public service career as a Biological Technician with the USFS before transferring to BLM in 1981. He was a Wildlife Management Biologist in southeast New Mexico specializing in endangered species management and land-use planning for nearly 8 years prior to entering the management field. Juen's position prior to his arrival in New Mexico was the Group Manager for National Conservation Areas and National Monuments within the National Landscape Conservation System in Washington, DC. He served as the Associate State Director for New Mexico, Oklahoma, Texas, and Kansas before being was sworn in as State Director in 2012.

Juen's professional focus has been in the area of collaboration with special interest groups, citizens, industry, local communities, and governments in land-use planning, management, and restoration of our public lands. He oversees two recently designated National Monuments: the Río Grande del Norte National Monument and the Organ Mountains-Desert Peaks.

### Tim Murphy

Welcome
November 5, 8:05-8:10 a.m.

Tim Murphy received his B.S. in Agriculture and Rangeland Science with a minor in Wildlife Biology from the University of Wyoming in 1978, shortly followed by a two-year stint as a Range Technician and Firefighter on the Bridger-Teton National Forest. He started working for the BLM in 1980 as a Range Conservationist and Supervisory Range Conservationist, moving into management in 1990. Murphy has worked in Wyoming, Nevada, New Mexico, Montana, and Idaho, and has served as the Deputy Assistant Director of the BLM Fire and Aviation Directorate and the Assistant Director of BLM Fire and Aviation at NIFC before being sworn in as the BLM Idaho State Director in September, 2014. Murphy is most proud of his work integrating fire management with resource needs, as well as building economic viability into landscape management.

### Janice Schneider

Opening Remarks
November 5, 8:10-8:50 a.m.

Janice M. Schneider is Assistant Secretary for Land and Minerals Management of the U.S. Department of the Interior. Schneider has more than 30 years of environmental and natural resources experience. Previously, Schneider was a partner in the Environment, Land and Resources Department of Latham & Watkins LLP, Global Co-chair of the firm's Energy and Infrastructure Project Siting and Defense Practice and local department chair of the Environment, Land & Resources Department. During her federal experience she was Counselor to the Deputy Secretary of the Interior (2000); a trial attorney in the Environment and Natural Resources Division of the U.S. Department of Justice (2001, 1998-1999); and an Attorney-Advisor with the DOI Office of the Solicitor (1992-1998). Schneider also worked as a fisheries biologist and environmental consultant for six years in south Florida with the University of Miami, the National Park Service, the Florida Department of Transportation and a private consulting firm.

### Dan Ashe

Opening Remarks
November 5, 8:10-8:50 a.m.

Daniel M. Ashe is the 16th Director of the U.S. Fish and Wildlife Service. Ashe spent his childhood in Atlanta, Georgia, where his father began a 37-year career with the Service. Prior to becoming Director, Ashe served in multiple career positions in the Service after joining the agency in 1995, including Deputy Director for Policy. Ashe also served as the Science Advisor to the Director, leading the Service's efforts to build its science capacity.

Prior to joining the Service, Ashe served on the staff of the former House Committee on Merchant Marine and Fisheries. In 13 years on Capitol Hill, Ashe served in several capacities, advising the Committee's Chairmen and Members on a wide range of environmental policy issues. Ashe holds a graduate degree in Marine Affairs from the University of Washington. He is an avid waterfowl hunter, angler and tennis player.

### Neil Kornze

Opening Remarks
November 5, 8:10-8:50 a.m.

Neil Kornze was confirmed as the Director of the BLM in 2014, having previously served as the Acting Deputy Director for Policy and Programs and Senior Advisor to the Director. In these roles, he worked on a broad range of issues, including renewable and conventional energy development, transmission siting, and conservation policy. He has also been active in tribal consultation, especially as it relates to oil and gas and renewable energy development. Before coming to the BLM, Kornze worked as a Senior Advisor to U.S. Senate Majority Leader Harry Reid (2003-2011), where he worked on a variety of public lands issues, including renewable energy development, mining, water, outdoor recreation, rural development, and wildlife. Kornze has also served as an international election observer in Macedonia, the Ukraine, and. Raised in Elko, NV, Kornze holds a bachelor's degree in Politics from Whitman College, and a master's degree in International Relations at the London School of Economics.

### Mike Connor

Keynote Address
November 5, 8:50-9:15 a.m.

Mike Connor serves as Deputy Secretary of the U.S. Department of the Interior. As Deputy Secretary, he is the second highest ranking official at the Department with statutory responsibilities as the Chief Operating Officer of an agency of more than 70,000 employees and an annual budget of approximately $12 billion. Connor is a key leader in implementing the Administration's priorities for the Department.

Connor has more than two decades of experience in the public sector, having served as the Commissioner of the Bureau of Reclamation from 2009 to 2014. From 2001 until his confirmation as Reclamation Commissioner, Connor served as Counsel to the U.S. Senate Energy and Natural Resources Committee. He previously served in the Department of the Interior from 1993 to 2001 in the Solicitor's Office, and then as Director of the Secretary's Indian Water Rights Office where he led the Department's efforts on a number of important water rights settlements.

### Anne Kinsinger

Moderator of Presentations
Overview of Rangeland Fire in the Great Basin Sagebrush Steppe

November 5, 9:45-11:30 a.m.

Anne Kinsinger is the Associate Director for Ecosystems in the U.S. Geological Survey (USGS) and is responsible for USGS research and monitoring on freshwater, terrestrial, and marine ecosystems and the human and fish and wildlife communities they support. Ms. Kinsinger serves as the co-chair of the Committee for Environment, Natural Resources and Sustainability (CENRS) Committee on Ecological Systems, and co-chair of the Office of Science and Technology Policy's Coastal Green Infrastructure and Ecosystem Services Task Force. Ms. Kinsinger has held numerous positions during her 19 years with the USGS, including Regional Director for the Western Region of USGS, Western Regional Biologist, Chief of Strategic Planning and Analysis in the Director›s office and director of the agency›s Western Ecological Research Center in Davis, Calif. Before joining the USGS, she worked for the U. S. Fish and Wildlife Service National Fisheries Contaminant Research Center, National Fish and Wildlife Foundation and the National Biological Survey.

### Rick Miller

Presenter
Overview of Rangeland Fire in the Great Basin Sagebrush Steppe
November 5, 9:45-11:30 a.m.

Bio and abstract not available at time of publication.

### Jeff Beck

Presenter
Overview of Rangeland Fire in the Great Basin Sagebrush Steppe
November 5, 9:45-11:30 a.m.

Dr. Jeff Beck is an Associate Professor of wildlife habitat restoration ecology in the Department of Ecosystem Science and Management, College of Agriculture and Natural Resources, at the University of Wyoming. His research focuses on restoring the effectiveness of wildlife habitats in disturbed rangelands, particularly sagebrush habitats. His work has been conducted in forest and rangeland systems in the Great Basin, Colorado Plateau, and Sagebrush Steppe. The work that Dr. Beck and his students conduct at the University of Wyoming seeks to link habitat conditions with population processes. Specifically, this research enhances the understanding of the direct and indirect impacts of anthropogenic disturbance on vertebrate species (greater sage-grouse and ungulates as model taxa) inhabiting sagebrush habitats, and the evaluation of the efficacy of mitigation techniques and conservation practices intended to enhance habitat conditions or mitigate effects of anthropogenic development in sagebrush habitats across a range of spatial and temporal scales.

***Abstract: "Influence of Fire on Sagebrush-Obligate Wildlife in the Great Basin"***

*Conservation of habitats used by greater sage-grouse (Centrocercus urophasianus) populations is considered to serve a surrogate role in conserving habitat for other vertebrate species that depend on resources provided by sagebrush (Artemisia spp.). Big sagebrush (A. tridentata) forms most of the habitat used by these iconic wildlife species; however, the range-wide distribution of big sagebrush and sage-grouse has declined by nearly 50% since settlement. Remaining sagebrush habitats in the Great Basin are increasingly fragmented and degraded by fire and other disturbances that promote invasive species such as cheatgrass (Bromus tectorum), thereby reducing habitat quality for sagebrush obligates. Thus, restoration of sagebrush wildlife habitats and populations of sagebrush obligates in the Great Basin must focus on reducing the frequency and size of fire, controlling invasive species (especially cheatgrass at lower elevations and encroaching conifers at higher elevations), and reestablishing big sagebrush and native perennial herbaceous plants.*

### Matt Germino

Presenter
Overview of Rangeland Fire in the Great Basin Sagebrush Steppe
November 5, 9:45-11:30 a.m.

Matt Germino has been a Research Ecologist with the US Geological Survey, Forest and Rangeland Ecosystem Science Center in Boise, Idaho, since 2011. He received his PhD from University of Wyoming (2000) in plant physiological and biophysical ecology, and then served on the faculty at Idaho State University before moving to USGS. Matt is on special assignment as the scientist for the Great Basin Landscape Conservation Cooperative, and has worked on the Rapid Ecological Assessments and other ecoregional initiatives. His current research is on climate responses of sagebrush and montane ecosystems and post-fire issues such as climate adaptation and selection of sagebrush seed sources, invasive species, and wind erosion.

***Abstract: "Climate, Wildfire, and Great Basin Ecosystems"***

*Climate effects are central to landscape vulnerability assessments and prioritization, rehabilitation, and restoration in sagebrush steppe. Fire, fuels, and post-fire treatments are affected by precipitation, temperature, and weather events. Recent studies reveal that minimum temperatures and yearly variation in amount and timing of precipitation are particularly important variables, but vulnerability to climate shifts differs regionally. Although long-lived perennials like sagebrush may have some resistance to climate variability, exotic annual grasses and young rehabilitation/restoration seedings are highly responsive. Climate and weather variability are also factors in emerging problems like post-fire wind erosion following large fires, which can complicate post-fire rehabilitation and ecosystem recovery. Opportunities to enhance climate adaptation lie in monitoring and assessment of fire-related land treatments, selection of appropriate seed sources, incorporation of new weather prediction tools, and providing land managers with tools and flexibility to adapt their land treatment applications to climate and weather variability.*

### Rick Miller

Overview of Rangeland Fire in the Great Basin Sagebrush Steppe
November 5, 9:45-11:00 a.m.

Dr. Rick Miller is a Professor Emeritus from Oregon State University. He has worked in plant and fire ecology of sagebrush and juniper woodland ecosystems in the Intermountain Region for nearly four decades. His work includes determining the key factors that influence plant succession, resilience and resistance to invasives as they relate to fire and other disturbances; evaluating the impacts of changing plant community composition and structure on wildlife habitat; and developing fire histories that have occurred across these landscapes for the past several centuries. He has authored over 100 refereed scientific publications and book chapters. Although he recently retired he still continues to work in the ecosystems he has spent most his life in.

***Abstract: "Issues, Concerns, and Challenges Related to Fire in the Great Basin"***

*Possibly the greatest challenge to managers is the implementation of effective management across the Great Basin (Intermountain Sagebrush Region), a highly complex landscape that varies in both time and space and is constantly impact by the intertwining of natural and human caused disturbances. Key issues include weed encroachment, grazing, species of concern, habitat loss, climate change, restoring arid and semi-arid environments, and expanding urbanization, all of which are closely linked to fire. Key challenges relate to scale, variability, limited and variable precipitation, managing for an uncertain future, and limited resources for management and restoration. This presentation will briefly describe the complexity of the Intermountain Sagebrush Region and the issues and challenges faced by land managers; setting the stage for the following speakers who will discuss these issues in more detail.*

### Will Whelan

Moderator of Panel
Management Moving Forward – States' Perspectives on Managing Fire and Sagebrush Steppe Challenges
November 5, 12:30-1:45 p.m.

Will Whelan is the Director of Government Relations for the Idaho Chapter of The Nature Conservancy. Will has been involved in sage grouse issues over the last several years and represented conservation interests on Governor Otter's Sage Grouse Task Force in 2012. Prior to joining the Conservancy in 2001, Whelan served as a deputy attorney general and section chief in the Natural Resources Division of the Idaho Attorney General's Office.

Whelan is an adjunct instructor of environmental policy for Boise State University. He is a graduate of Yale College and the University of Oregon, School of Law.

### Virgil Moore

Panelist
Management Moving Forward – States' Perspectives on Managing Fire and Sagebrush Steppe Challenges
November 5, 12:30-1:45 p.m.

Virgil Moore has 37 years of experience in fish and wildlife management. Before taking his current position he served as deputy director for field operations at Idaho Fish and Game and has held numerous executive management positions including Fisheries Bureau Chief, Information and Education Bureau Chief, and various management positions with in the Fisheries Bureau. Moore holds various positions with AFWA and WAFWA, including Chair of the Sage Grouse Executive Oversight Committee.

### Leo Drozdoff

Panelist
Management Moving Forward – States' Perspectives on Managing Fire and Sagebrush Steppe Challenges
November 5, 12:30-1:45 p.m.

Leo M. Drozdoff was appointed a member of Nevada Governor Brian Sandoval's cabinet in January 2011. As Director of the Department of Conservation and Natural Resources, he is responsible for agencies that include Environmental Protection, Water Resources, Forestry, State Parks, State Lands, and State Historic Preservation, as well as programs such as Conservation Districts, Sagebrush Ecosystem and Nevada Natural Heritage. Drozdoff previously served during most of 2010, as Acting Director of the Department for Governor Jim Gibbons and from October 2004 to April 2010, as the Administrator of the Nevada Division of Environmental Protection. He has also been appointed by the Governor as Chairman of the Nevada Public Employees Benefits Board and as the Governor's representative to the Western Governors Sage Grouse Task Force. Drozdoff earned his bachelor's degree in civil engineering from Bucknell University in Lewisburg, Pennsylvania, and his MBA from the University of Nevada, Reno. He is a licensed Professional Civil Engineer in the State of Nevada.

### Kathleen Clarke

Panelist
Management Moving Forward – States' Perspectives on Managing Fire and Sagebrush Steppe Challenges
November 5, 12:30-1:45 p.m.

Kathleen Clarke was appointed Director of the Public Lands Policy Coordination Office in Utah in January 2012. In this role she over-sees major public lands-related litigation including R.S. 2477 quiet title actions, and facilitates and coordinates the exchange of information, comments and recommendations on public lands policies among and between state and federal agencies.

Kathleen's career in public lands and natural resources extends over 30 years and includes public services in many leadership roles including: National Director of the United States office of the Bureau of Land Management, Executive Director of the Utah Department of Natural Resources, Deputy Commissioner of the Utah Department of Agriculture and Food, and Executive Director of the Ogden office of U.S. Representative James V. Hansen of Utah.

### Brett Brownscombe

Panelist
Management Moving Forward – States' Perspectives on Managing Fire and Sagebrush Steppe Challenges
November 5, 12:30-1:45 p.m.

Brett Brownscombe serves as a natural resource policy advisor to Oregon Governor John Kitzhaber's. He focuses primarily on water, forest, and fish and wildlife issues, including the local, state, and federal government entities as well as citizens engaged in these issues across Oregon. He works to advance the Governor's natural resource conservation and management objectives aimed at protecting and restoring Oregon's important habitats as well as local community and economic health. Prior to joining the Governor's office, Brownscombe lived and worked in La Grande, OR and later moved to Portland, where he worked for The Freshwater Trust on projects and policies aimed at improving freshwater ecosystem health and related jobs on rural private and public lands.

He is a graduate of Lewis & Clark Law School and enjoys, among other things, salmon, steelhead, and rural communities.

### Carol Schuler

Moderator of Presentations
Priorities and Strategies for Sage-grouse Habitat
November 5, 12:00-3:30 p.m.

Carol Schuler is a wildlife ecologist with extensive science leadership experience in the west with both the U.S. Fish and Wildlife Service (USFWS) and the U.S. Geological Survey (USGS). She spent 19 years with the USFWS leading endangered species, ecological services, refuge, and science programs. She has spent the last 10 years working for USGS as the Director of the USGS Forest and Rangeland Ecosystem Science Center and just recently transitioned into a new role as the Senior Science Advisor for the USGS Ecosystems Mission Area.

### Amy Lueders

Presenter
Priorities and Strategies for Sage-grouse Habitat
November 5, 12:00-3:30 p.m.

Amy Lueders is the new BLM Nevada State Director. As the state director, she oversees the operations of the nearly 48 million acres of public land that comprises 67 percent of the state of Nevada. She served as the BLM Nevada Associate State Director from 2004 to 2010. Lueders graduated from Duke University with a Bachelor of Arts degree in Economics. She began her BLM career in 1984 at the BLM Washington office as an economist. She later held a number of budget development and program analysis positions. Prior to coming to BLM Nevada, Lueders served as the BLM field manager in Las Cruces, New Mexico.

Lueders and her husband Greg have two children, Matthew and Nathan. She is an outdoors enthusiast and enjoys outside athletic activities.

### Jeanne Chambers

Presenter
Priorities and Strategies for Sage-grouse Habitat
November 5, 12:00-3:30 p.m.

Jeanne Chambers is a research ecologist with Rocky Mountain Research Station, US Forest Service, located in Reno, NV. She has a Master's Degree in Range Science and a PhD in Biology/Ecology from Utah State University. Her research interests include global change processes, disturbance/restoration ecology, and invasive species. Her current work focuses on arid and semi-arid shrublands, woodlands, and riparian ecosystems.

***Abstract: "Using Resistance and Resilience Concepts to Reduce Impacts of Invasive Annual Grasses and Altered Fire Regimes on the Sagebrush Ecosystem and Greater Sage-Grouse"***

*Jeanne C. Chambers, David A. Pyke, Jeremy D. Maestas, Mike Pellant, Chad S. Boyd, Steven B. Campbell, Shawn Espinosa, Douglas W. Havlina, Kenneth E. Mayer, and Amarina Wuenschel*

*A strategic approach for conservation of sagebrush ecosystems and Greater Sage-Grouse (sage-grouse) that focuses on habitat threats caused by invasive annual grasses and altered fire regimes has been developed by a Western Association of Fish and Wildlife Agencies working group. It uses information on factors that influence (1) sagebrush ecosystem resilience to disturbance and resistance to invasive annual grasses and (2) distribution, relative abundance, and persistence of sage-grouse populations to develop management strategies at both landscape and site scales. A sage-grouse habitat matrix links relative resilience and resistance of sagebrush ecosystems with sage-grouse habitat requirements for landscape cover of sagebrush to help decision makers assess risks and determine appropriate management strategies at landscape scales. Focal areas for management are assessed by overlaying matrix components with sage-grouse Priority Areas for Conservation (PACs), breeding bird densities, and specific habitat threats. Decision tools are identified for determining the suitability of focal areas for treatment and the most appropriate management treatments.*

### Doug Havlina

Presenter
Priorities and Strategies for Sage-grouse Habitat
November 5, 2:00-3:30 p.m.

Doug Havlina works as a Fire Ecologist in BLM's Fire Planning and Fuels Management Division, a position he has held since 2002. His primary tasks involve outreach and information sharing with BLM's fire ecology audience. Recently, Doug has contributed to various sage-grouse conservation projects which include the WAFWA Fire and Invasives Committee, BLM National Technical Team, Resistance and Resilience General Technical Report, BLM Disturbance and Monitoring Team, and serving as National coordinator for interagency Fire and Invasive Assessment (FIAT) efforts.

***Abstract: "Conducting Fire and Invasives Assessments to address Wildfire, Invasive Annual Grass, and Conifer Expansion in the Great Basin"***

*An interagency effort is underway to establish management guidance for key sage-grouse habitats across the Great Basin. The Fire and Invasive Assessment (FIAT) process is a two-phased analysis incorporating both regional and local data. In the first phase of the project, the regional context of highly valued sage-grouse habitats was established using variables such as ecological resistance/resilience, priority areas for conservation, sagebrush landscape cover, breeding bird density, and threat factors. From this analysis, six priority landscapes were identified. In the second phase of FIAT, assessment teams for each priority landscape will refine the initial findings to identify project planning areas and treatment opportunities which address the threat factors of wildfire, invasive annual grasses, and conifer expansion. The FIAT outcomes will include ecologically-based management guidance in a 5 year program of work for fire operations, habitat restoration, fuels management, and rehabilitation.*

### Jeremy Maestas

Presenter
Priorities and Strategies for Sage-grouse Habitat
November 5, 2:00-3:30 p.m.

Jeremy Maestas is a wildlife biologist with the USDA Natural Resources Conservation Service based in Redmond, Oregon, where he has served as the National Technical Lead for the Sage Grouse Initiative. In this role, he helped build partnerships to accelerate strategic habitat conservation delivery across the West. Much of his career has focused on conserving working landscapes in the Great Basin. Recently, his emphasis has been working with interdisciplinary partners to develop a strategic game plan for reducing fire and invasive threats to sagebrush ecosystems.

***Abstract: "Trial by Fire: Improving Our Ability to Reduce Wildfire and Invasive Impacts Through Accelerated Partner Collaboration"***

*Partners have rallied in unprecedented fashion to reduce threats to sage-grouse and the sagebrush ecosystem they occupy. Actions include expedited revisions of land use management plans by the BLM and Forest Service to incorporate conservation measures and regulatory safeguards for sage-grouse, and implementation of a myriad of state- and local-based solutions. The NRCS-led Sage Grouse Initiative has helped >1,000 ranchers implement proactive conservation measures designed to improve ecosystem resilience and boost sage-grouse populations on over 6,000 mi2 of working rangelands. While implementation of proven practices are continually scaled up—including seamless removal of juniper across public and private lands—partners seek a mutually-agreed to path forward for strategically reducing wildfire and exotic annual grass threats. The WAWFA Fire and Invasives Working Group recently provided the ecological foundation for one such strategic game plan that opens the door to accelerated implementation of highly targeted efforts to reduce fire and invasive impacts.*

### Jay Gibbs

Moderator of Panel
Rangeland Fire in the Great Basin: Challenges and Needs from a Field Perspective
November 5, 3:45-4:30 p.m.

Jay Gibbs is a Basin Team Leader for the Natural Resources Conservation Service in eastern Oregon, a position he has held for over 20 years. In this role, he has led a dedicated field staff implementing Farm Bill conservation programs to achieve landscape-scale conservation on private lands. He enjoys building partnerships and finding creative solutions to help landowners get conservation on the ground. Recently, he initiated an innovative partnership with Oregon Department of Forestry for community fire planning assistance in priority sage-grouse habitats.

### Rosey Thomas

Panelist
Rangeland Fire in the Great Basin: Challenges and Needs from a Field Perspective
November 5, 3:45-4:30 p.m.

Rosey Thomas was born and raised on a cattle ranch in New Mexico, amidst a very large family. She attended NMSU in Las Cruces, NM, and graduated in 1976 with a Bachelor's Degree in Animal Science. She worked summers during college, fighting fire for BLM in Craig, Colorado. This eventually led to a permanent BLM career in wildfire and aviation management that took her to Southern California's Mojave Desert, north to the tundra of Alaska in Fairbanks and McGrath, down to the forests of the Sierra Nevada Mountains with the US Forest Service, back to BLM in Carson City, and up to Idaho. There she moved out of fire management and became a Field Manager for BLM on Boise District, and finally she came back to the Great Basin country in Ely, where she has been the District Manager for 5 years. Rosey has two grown sons, Mike and Josh.

### Jose Noriega

Panelist
Rangeland Fire in the Great Basin: Challenges and Needs from a Field Perspective
November 5, 3:45-4:30 p.m.

Jose Noriega has been the District Ranger on the Ely Ranger District, Humboldt-Toiyabe National Forest (NF) in Ely, Nevada since 2009. He was the District Ranger on the Santa Rosa Ranger District, Humboldt-Toiyabe NF in Winnemucca, Nevada from 2001 to 2009, the District Wildlife Biologist/Recreation on the Powell Ranger District, Dixie NF from 1995 to 2001, and the District Wildlife Biologist on the Challis Ranger District, Salmon-Challis NF from 1992 to 1995.

Noriega graduated from Utah State University in 1992 with a BS in Wildlife Management. He and his wife, Amy, have been married for 22 years and have two children ages 20 and 18.

### John Kasbohm

Panelist
Rangeland Fire in the Great Basin: Challenges and Needs from a Field Perspective
November 5, 3:45-4:30 p.m.

John Kasbohm began his career with the U.S. Fish and Wildlife Service in 1995. Since 2011, he has served as the Project Leader of the Sheldon-Hart Mountain National Wildlife Refuge Complex located in southern Oregon and northwest Nevada. Prior to that, he held several positions with the Service including as a Refuge Manager at Lower Suwannee and Chassahowitzka National Wildlife Refuge complexes in Florida, the Florida Panther Endangered Species Recovery Coordinator with the North Florida Field Office, and as an Ecologist with the Georgia Ecological Services Field Office. Before accepting a position with the Service, Kasbohm was a Research Scientist at Virginia Tech in Blacksburg, Virginia where he coordinated a taxonomy/genetics study of black bear populations throughout the southeastern states. He holds a Ph.D. in Wildlife Science from Virginia Tech, a M.S. in Entomology from the University of Wisconsin and an A.B. in Biology from Washington University.

***Abstract: "Rangeland Fire in the Great Basin: Challenges and Needs from a Field Perspective"***

*The Sheldon-Hart Mountain National Wildlife Refuge Complex protects almost a million acres of high desert habitat for pronghorn antelope, greater sage-grouse, and a rich assortment of other sage-steppe dependent wildlife. It is also one of the most expansive wildlife habitats in the arid West free of domestic livestock. Grazing continued until the early 1990's when all authorized grazing was*

*determined incompatible with refuge purposes and was discontinued. Likewise, feral horses were entirely removed from Hart Mountain NAR in the 1990's and the eradication of feral horses at Sheldon NWR will be complete in 2015. Releasing habitat from the pressures of livestock grazing and feral horse affects is an important component of current refuge restoration and is resulting in increased habitat resiliency.*

*Although fire is an essential part of the refuge ecosystem to create biological diversity, wildfires are aggressively suppressed by a cooperative of interagency suppression resources. Fire is the primary management tool used to revitalize wildlife habitat and its prescriptive use is utilized in wet meadows and has been considered within high elevation shrub habitats to meet long-term wildlife habitat objectives.*

**John Freemuth**

Why All This Matters
November 5, 4:30-5:00 p.m.

John Freemuth is Professor of Political Science and Public Policy, Boise State University, and a published author. His primary academic interest is with the public lands of the United States. Currently his work gravitates towards puzzling out the relationship between science and public policy as it relates to issues surrounding the public lands. He chaired the Science Advisory Board of the Bureau of Land Management, after being appointed by Interior Secretary Bruce Babbitt. And was the Senior Fellow at the Cecil Andrus Center for Public Policy from 1998-2012, He is principal investigator on a grant from the United States Geological Survey working on improving the policy utility of GAP Analysis, Species Modeling and Protected Area data. He has also been a high school teacher, and seasonal park ranger. He has a BA from Pomona College and a Ph.D. from Colorado State University. He was named the Carnegie Foundation for the Advancement of Teaching /CAES of Professor of the Year for Idaho for 2001.

## Thursday, November 6

**Janice Schneider**

Status Updates from Senior Policy Group
November 6, 8:10-8:20 a.m.

Janice M. Schneider is Assistant Secretary for Land and Minerals Management of the U.S. Department of the Interior. Schneider has more than 30 years of environmental and natural resources experience. Previously, Schneider was a partner in the Environment, Land and Resources Department of Latham & Watkins LLP, Global Co-chair of the firm's Energy and Infrastructure Project Siting and Defense Practice and local department chair of the Environment, Land & Resources Department. During her federal experience she was Counselor to the Deputy Secretary of the Interior (2000); a trial attorney in the Environment and Natural Resources Division of the U.S. Department of Justice (2001, 1998-1999); and an Attorney-Advisor with the DOI Office of the Solicitor (1992-1998). Schneider also worked as a fisheries biologist and environmental consultant for six years in south Florida with the University of Miami, the National Park Service, the Florida Department of Transportation and a private consulting firm.

**Rex McKnight**

Status Updates from Senior Fire Operations Group
November 6, 8:10-8:20 a.m.

Rex McKnight began his career with the BLM in 1977 as an engine crewmember on the Montrose District in Colorado, working in a variety of fire suppression and fire management positions. McKnight moved to Alaska in 1985 and began work at the Alaska Fire Service in a variety of fire management positions and participated on Type 1 and Type 2 Incident Management Teams. As a member of the Alaska Type 1 IMT, McKnight supported the planning and logistical efforts for the Fire Department of New York City after the terrorist attack on the World Trade Center. In May 2006, he started working in his current position as the State Fire Management Officer for Nevada BLM. McKnight's assignment as Acting Associate State Director at the Nevada State Office (2011-2012) provided him with a greater understanding of the role that BLM plays in providing protection of the natural resources and economic opportunities through the country.

### Ted Koch

Presenter
The Effects of Rangeland Fire on Sage-grouse: A Fish and Wildlife Service Perspective
November 6, 8:20-8:50 a.m.

Ted Koch is the Nevada State Supervisor with the U.S. Fish & Wildlife Service for all Ecological Services programs, including endangered species, fisheries restoration, private lands, federal agency support, and other programs. He has worked with private landowners, states, Native American Tribes and federal agencies for over 20 years to conserve fish and wildlife habitats in the western United States. Koch's work has included implementing every major section of the federal Endangered Species Act (ESA); reviewing federal projects; supporting hydropower project relicensing; conserving habitat on National Wildlife Refuge Lands; and researching and managing species in native habitats. Koch received his B.S. in Environmental Biology in 1985 from Southern Connecticut State University in New Haven, and his M.S. in Zoology in 1990 from Idaho State University in Pocatello.

***Abstract: "The Effects of Rangeland Wildfire on Sage Grouse: A Fish and Wildlife Service Perspective"***

*The invasive species and wildfire cycle is the most significant threat to sagebrush ecosystems in the Great Basin. The presences of cheatgrass can increase the risk, frequency, and size of fire, causing a change in vegetation away from native sagebrush ecosystems. Sage grouse are sagebrush obligates and cannot survive where this change occurs.*

*Because of an increased focus on addressing this threat we have new insights and tools. The federal land management agencies' Fire and Invasives Assessment Team (FIAT) has produced a plan for prioritizing and implementing actions. The Western Association of Fish and Wildlife Agencies Fire and Invasives Working Group has produced the "Resistance and Resilience Report" identifying 15 actions that can help stop the cheatgrass-wildfire cycle. Applying these 15 actions strategically, across the landscape, over time and adaptively through the FIAT process, we have our best chance at stopping the decline of sagebrush ecosystems in the Great Basin.*

### Jim Stovall

Moderator of Presentations
Before the Fire; Rangeland Mitigation Treatments that Work
November 6, 8:50-10:00 a.m.

Jim Stovall has worked for the BLM for 26 years. He came on as a Range Specialist in the Farmington FO, was the Field Manager in Carlsbad and is currently the Pecos District Manager in New Mexico.

### Jim McIver

Presenter
Before the Fire; Rangeland Mitigation Treatments that Work
November 6, 8:50-10:00 a.m.

Jim MvIver's major research emphasis is the study of ecosystem effects of management practices in forest and rangeland ecosystems, including prescribed burning, mechanical treatments, and livestock grazing. McIver has served as technical and administrative lead in several projects designed as management experiments, in which realistic treatments are applied at operational scales, and in which variables important to managers are measured over meaningful lengths of time. These projects have all been designed to offer managers integrated information, the kind of information that can be used to assess tradeoffs in the choice of alternative management practices. Trained as an entomologist, McIver also evaluates effects of land management practices on invertebrates, including ants, spiders, butterflies, and pollinators. His entomological research includes studies on ant social organization, and the ecology of ant mimicry.

***Abstract: "Short--Term Response to Sage-Steppe Restoration Treatments: The Sagstep Project"***

The Sagebrush Steppe Treatment Evaluation Project (SageSTEP) is a comprehensive, integrated, long-term study that evaluates the ecological effects of alternative treatments designed to restore sagebrush communities of the Great Basin and surrounding areas. This talk summarizes short-term SageSTEP results, with a focus on herbaceous vegetation, particularly native perennial bunchgrasses. Woody vegetation reduction initiated a cascade of effects, beginning with increases in the availability of nitrogen and soil water, followed by increased growth of herbaceous vegetation. Cool wet sites were more resilient (more desirable response of perennial bunchgrasses) after treatment than warm dry sites, and resistance was mostly dependent on pre-treatment cover of cheatgrass. We predict that additional time will reveal altered outcomes, and that at least 10 years post-treatment time will be necessary to judge restoration success on the majority of sites.

## Lance Okeson

Presenter
Before the Fire; Rangeland Mitigation Treatments that Work
November 6, 8:50-10:00 a.m.

Okeson began his fire career on the Ochoco National Forest in Prineville, Oregon in 1984. He graduated from Oregon State 1988 with a Bachelor of Science Degree in Rangeland Resources. Okeson has spent much of his fire career working in various positions in both suppression and fuels and also worked for four years as a range conservationist for the Lakeview District BLM before moving to Boise Idaho in 2007, where he currently works as the AFMO Fuels program Lead for the Boise District BLM.

***Abstract:*** The BLM manages millions of acres of rangelands in the western United States. Wildfires have burned much of the West in the last 30 years and we are losing vast acreages of Sagebrush/Steppe habitat in larger and larger events. Wildfire has been identified as the number one risk to Sage Grouse habitat and the BLM's Fire and Fuels programs are designing strategies to minimize the threat of large wildfires. One of these strategies is compartmentalization of the landscape with fuel breaks. To be effective fuel breaks must meet certain criteria that meet the fire fighters needs first, if we are to have any success in managing large range fires in the future.

## Bob Unnasch

Presenter
Before the Fire; Rangeland Mitigation Treatments that Work
November 6, 8:50-10:00 a.m.

Robert (Bob) Unnasch, Ph.D. is quantitative ecologist with broad interests in animal populations, natural communities, and landscape function. Unnasch received his masters in ornithology and his PhD in evolutionary ecology. He has focused his work on the assessment, monitoring, and management of grasslands, shrublands and rangelands. Unnasch has played a principal role in developing tools, techniques, and methodologies for conservation planning and adaptive management. He played a key role in developing The Nature Conservancy's Ecoregional and Conservation Action Planning frameworks, The Ecological Integrity Assessment Framework for the NPS, and Landscape Toolbox web tools for rangeland assessment and monitoring. He has two decades experience in the design and implementation of multi-scale ecological monitoring protocols, and has taught classes on ecological monitoring for the USFS, the NPS, and the DoD. Unnasch has spent the last 10 years developing models to simulate changes in natural communities and landscape structure resulting from climate change.

*Abstract: The loss of Greater Sage-grouse habitat to uncharacteristically large wildfires is considered the greatest threat to populations in NV, ID, OR, and UT. One strategy to minimize the impacts of these large fires is to design and implement robust regional networks of fuel breaks that, themselves, have little impact on the ecosystem. To inform this design, we have developed models of fire likelihood across a 27 million acre landscape, and use these models to design and test the effectiveness of different networks of fuel breaks to reduce fire likelihood in the remaining large patches of GSG*

*habitat. We are using a circuit-theoretic approach to fire modeling that is consistent with fundamental theories about wildfire, and allows the use existing datasets that would overwhelm the traditional fire behavior models. These models are transparent and reproducible, so others can design fuel breaks in areas we have not mapped or modify fuel break placement in this Project Area.*

**Mike Fettic**

Presenter
Before the Fire; Rangeland Mitigation Treatments that Work
November 6, 8:50-10:00 a.m.

Mike Fettic serves as the Interagency Fire Management Officer (FMO) for the Desert Basin Fire Management Zone, which includes the Bureau of Land Management (BLM) Battle Mountain and Winnemucca Districts, and the Forest Service (FS) Humboldt-Toiyabe Santa Rosa Ranger District. He earned a Bachelor's of Science at the University of Nevada, Reno in Environmental and Natural Resource Science and a minor in Animal Science. Over his 20 years of fire experience he previously held positions with the BLM and FS as Assistant Fire Management Officer, Battalion Chief, Engine Captain, Dispatcher, and detailed as an Associate District Manager. As the FMO, his programs of responsibility include Wildland Fire Presuppresion/Suppression (Operations, Aviation, and Dispatch), Hazardous Fuels, Emergency Stabilization and Rehabilitation, Forestry, and Noxious Weeds. In his spare time he enjoys spending time with his family, sports, hunting, and fishing.

***Abstract:*** *Fuel break planning in Fuels Management treatments has moved beyond the Wildland Urban Interface (WUI) to address the widespread loss of sagebrush habitat due to wildfire. In addition to WUI, treatment locations include transportation corridors with frequent human-caused ignitions and high priority Greater Sage-Grouse habitat with contiguous high fuel loads. A collaborative approach with wildlife agencies and other cooperative agencies is used for project planning. Utilizing a combination of treatments, the system consists of fuelbreaks and other treatments to protect habitat by reducing fuel loads along existing road networks around and within important habitat units. These treatments not only lower the risk of fire spread into priority habitats but also reduce habitat fragmentation to the greatest extent possible. This is an overview of existing and planned projects that involve several high value sage-grouse Population Management Units (PMU) utilizing rehabilitation and protection measures in a landscape approach on the BLM Winnemucca District.*

**Terry Messmer**

Presenter
Before the Fire; Rangeland Mitigation Treatments that Work
November 6, 8:50-10:00 a.m.

Terry A. Messmer is a Professor and Extension Wildlife Specialist in the Department of Wildland Resources, Utah State University. Logan. He also is the Director of the Jack H. Berryman Institute the director of the Utah Community-Based Conservation Program at Utah State University. As CBCP director he, his staff, and graduate students work closely with Utah's 10 greater sage-grouse local working groups to identify implement, and evaluate the effects of management actions on sage-grouse conservation. He has served as the major professor for over 25 graduate students (5 Ph.D. and 20 MS) studying sage-grouse ecology in Utah. He is a member of the Utah Governors Greater Sage-grouse Task Force where he serves as the scientific advisor. He is the past Editor-in-chief of The Wildlife Society Bulletin, and a currently an Associate Editor for the Journal of Wildlife Management and the Wildlife Society Bulletin.

***Abstract: "Sage-grouse Responses To Forage Kochia Firebreaks: Implications For Conservation"***

*Terry Messmer and Stephanie Graham monitored radio-collared greater sage-grouse (Centrocercus urophasianus; sage-grouse) from 2010-2012 on a 4,800 ha seasonal range (i.e., Badger Flat) that was greenstripped with forage kochia (Bassia prostrata) during the fall and winter of 2010 in north-*

*western Box Elder County, Utah to document sage-grouse responses to the firebreak. To determine potential sage-grouse use of forage kochia as winter forage, we also collected sage-grouse fecal pellets and used microhistological techniques to determine forage kochia and sagebrush presence in fecal pellets. Shrub canopy cover and densities were reduced during the firebreak seedbed preparation. Sage-grouse preferred untreated areas; using the greenstripped areas as an extension of an existing lek. Forage kochia remained confined to the firebreak. Sagebrush dominated in the fecal pellets sampled. Sage-grouse nests that were located closer to roads experienced higher predation rates, and more adult and juvenile mortalities also occurred closer to roads. These observations suggest the greenstrip seedbed preparation which reduces or further fragments existing sagebrush cover may also increase sage-grouse predation risks. Managers should consider placing greenstrip firebreaks adjacent to existing roads or disturbances.*

**Todd Black**

Presenter
Before the Fire; Rangeland Mitigation Treatments that Work
November 6, 8:50-10:00 a.m.

Todd Black was born in Utah and attended graduate school at Utah State University. For nearly the past 20 years, he has continued his research efforts by working for USU and was the Co-Founder of USU's Community Based Conservation Program. Here he worked almost exclusively with and spear-headed USU's sage-grouse research efforts with Dr. Terry Messmer. There isn't anyone in the state of Utah who has trapped and held more sage-grouse in their hands then Todd. He loves the late nights trapping and the early mornings counting sage-grouse. He has personally counted sage-grouse leks 5 different states, 21 different counties and has personally counted over 150 different leks and has over two-terra bites of sage-grouse pictures. In 2012, Todd left USU to pursue his career dream to be the Wildlife Manager for Desert Western Ranches. Todd now oversees wildlife monitoring and Environmental lessee/conservation partnership programs on nearly million acres in the Western US and Canada.

***Abstract: "Applied Uses and Benefits of Fuel Breaks on a Working Cattle Ranch - Making Fuel Breaks Work in a Sagebrush Ecosystem, Deseret Land and Livestock Utah"***

*Since the ranch was purchased in the early 1980s, Deseret Land and Livestock has been working to improve landscapes that benefit both wildlife and livestock operations. Between 1985 and 2005 about 1.4% of the ranch was 'treated' annually mainly in sagebrush communities to reduce competition and dominance of sagebrush and to increase herbaceous cover and production. The success of these treatments and their longevity varied greatly over time. As fuel cost and seed cost continue to increase, the ranch is looking for opportunities to use fire more as a method of treatment particularly in areas above 6700'. To accomplish this, the ranch is focusing time, seed, and money on working on using existing roads and fence lines to expand into usable fuel breaks. While only antidotal, the ranch has observed use of these fuel breaks not only by livestock but by sage-grouse, mule deer, elk, moose and other mammals and songbirds.*

**Jeremy Maestas**

Moderator of Panel
Communication and Public Engagement
November 6, 11:45-1:00 p.m.

Jeremy Maestas is a wildlife biologist with the USDA Natural Resources Conservation Service based in Redmond, Oregon, where he has served as the National Technical Lead for the Sage Grouse Initiative. In this role, he helped build partnerships to accelerate strategic habitat conservation delivery across the West. Much of his career has focused on conserving working landscapes in the Great Basin. Recently, his emphasis has been working with interdisciplinary partners to develop a strategic game plan for reducing fire and invasive threats to sagebrush ecosystems.

**Rocky Barker**

Panelist
Communication and Public Engagement
November 6, 11:45-1:00 p.m.

Rocky Barker is the energy and environment reporter for the Idaho Statesman and has been writing about the West since 1985. He is the author of Scorched Earth How the Fires of Yellowstone Changed America and co-producer of the movie Firestorm: Last Stand at Yellowstone, which was inspired by the book and broadcast on A&E Network. He also co-authored the Flyfisher's Guide to Idaho and the Wingshooter's Guide to Idaho with Ken Retallic. He also was on the Statesman's team that covered the Sen. Larry Craig scandal, which was one of three Pulitzer Prize finalists in breaking news in 2007. The National Wildlife Federation awarded him its Conservation Achievement Award.

**Génie MontBlanc**

Panelist
Communication and Public Engagement
November 6, 11:45-1:00 p.m.

Eugénie (Génie) MontBlanc is the program coordinator for the Great Basin Fire Science Exchange, located at the University of Nevada in Reno. She works to develop direct connections between wildland scientists and managers, and to make wildland fire and fuels science information more accessible in order to ease and improve land treatment decision-making for Great Basin challenges such as invasive annual grasses, piñon and juniper encroachment and expansion, declining resilience to disturbance in sage steppe ecosystems, climate change, and landscape prioritization. Recent work includes planning a field workshop series, coordinating the publication of new information syntheses and field guides, conducting informative webinars, and website design enhancements to increase access to information. MontBlanc earned her bachelors of science degree in Biology from San Francisco State University and master of science degrees in Biology and in Resource Economics from the University of Nevada.

**Lisa Eller**

Panelist
Communication and Public Engagement
November 6, 11:45-1:00 p.m.

Lisa Eller joined The Nature Conservancy in Idaho in 2012. She manages the chapter's digital media, print publications, media relations, outreach and marketing partnerships. Lisa has bachelor's degrees in Journalism and Cognitive Psychology from the University of Hawaii at Manoa, and a graduate certificate in E-learning design and development from the University of Washington. She spent several years reporting on environmental issues in Hawaii and Colorado.

Prior to moving to Boise, Lisa led social marketing campaigns for coral reef conservation in the Commonwealth of the Mariana Islands in Micronesia. She grew up enjoying the parks and beaches of Southern California, and has lived in Hawaii, Colorado, Alaska and Saipan. She spends much of her time enjoying the outdoors with her husband, James, and son.

### Julia Sullens

Moderator of During the Fire – Strategy and Tactics
November 6, 1:15-2:30 p.m.

Julia Sullens began her career with the Oregon Department of Forestry (ODF) while completing a B.S. in Forest Management at Oregon State University. In the ten years at ODF, Sullens worked through various fire and forestry positions, including a six-month detail as the Assistant Area Director for Northwest Oregon and climbing to the Assistant Unit Forester in Pendleton. Sullen began working for the Idaho Department of Lands (IDL) in 2011 as an Assistant Fire Warden for the Southwest Area. In 2013 a new position was created, with a large focus on coordinating the Rangeland Fire Protection Associations, a new program to the State of Idaho; Sullens has held this position since July of 2013.

### Lindsey Neiwert

During the Fire – Strategy and Tactics
November 6, 1:15-2:30 p.m.

Lindsey Neiwert is a Fire Operations Specialist (Battalion Chief) for the Boise District BLM and has worked as a wildland firefighter for 22 seasons. She is an expert in managing fast-moving, complex wildland fires and has suppressed over 500 fires throughout multiple geographic areas and fuel types. She currently serves as a primary incident commander for the Boise District and is responsible for managing wildland fires while protecting life, property and resource values including sage grouse habitat.

***Abstract:*** *When one thinks of priorities to protect on the landscape, it is critical to recognize that in fire suppression, the absolute priority is firefighter and public safety. With that being said, the field is very aware that sagebrush-steppe habitat has now taken one of the front row seats as a resource priority, and the field has taken action on this matter. One of the ways that habitat is being conserved is by keeping fires as small as possible during the initial attack phase of wildland fire suppression; competent and experienced field leadership is integral to that success. Additionally, dozers are a vital tool in keeping fires as small as possible in the Great Basin sagebrush-steppe habitat. Other key factors for success include: initial dispatch of appropriate aerial resources and ground resources; timely decisions regarding dozer use; and effective partnerships with cooperators, including private land-owners.*

### Jill Leguineche

During the Fire – Strategy and Tactics
November 6, 1:15-2:30 p.m.

Jill Leguineche started her BLM career as an 18 year old in 1997 and hasn't been able to get it out of her blood since. She began her career as a FFT2 on a Type IV engine in Shoshone, Idaho. She moved into dispatch at South Central Idaho where she spent a large portion of her time as the aircraft dispatcher. Jill has been the Center Manager of Boise Interagency Dispatch Center since January 2010.

***Abstract:*** *It's rare that we only get one ignition therefore how fires are prioritized and resources are allocated happens with all agencies at the table. The single overriding priority is safety of human life. Sharing resources with partners and cooperators is one of the keys to success in reaching the desired future conditions of public lands.*

## Rich Harvey

During the Fire – Strategy and Tactics
November 6, 1:15-2:30 p.m.

After graduating from Humboldt State University with a Bachelors Degree in Forest Management in 1987, Rich Harvey joined the Nevada Division of Forestry as a Conservation Crew Supervisor in Winnemucca. Harvey has since worked in progressively challenging wildland fire, and natural resource management positions with the Division for the past 26 years including assignments as Regional Manager for the Northern (Elko) and Western (Carson City) Regions, Statewide Fire Program Coordinator and currently as Deputy State Forester. Rich has over 30 years' experience on Incident Management Teams and is currently a Type I Incident Commander with recent deployments for major wildland fires in Colorado, Idaho and Nevada.

He is currently Co-Chair of the National Area Commander-Incident Commander Council and has served as President of the Lake Tahoe Regional Fire Chiefs Association, Chair of the Sierra Front Wildfire Cooperators, Chair of the California-Nevada-Hawaii Forest Fire Council and member of the Western Governor's Forest Health Advisory Committee.

***Abstract: "Local and Rural Fire Engagement"***

*The State of Nevada has developed its Wildland Fire Protection Program in partnership with counties and local fire jurisdictions to comprehensively and cooperatively address the cycle of wildfire management that includes prevention and pre-suppression, initial attack and suppression and subsequent restoration and rehabilitation. The State has added fire suppression capacity, developed the capabilities of Volunteer Fire Departments (VFDs) and rural communities, enhanced prevention programs, and expanded fuels management efforts.*

*Nevada's Wildland Fire Protection Program is a complete approach to wildland fire that recognizes that proper management is truly a year-round effort, not one simply focused on the fire season. It places the state in an important coordination role with both federal and local partners, incorporates science into fire ground decision making, enhances coordinated initial attack, and strengthens relationships among stakeholders and first responders. As a result, Nevada is taking a significant step forward through a robust wildfire approach that is just one of many innovative and comprehensive elements of the State's strategy to enhance sagebrush habitat conservation and sage grouse protection.*

## Darcy Helmick

During the Fire – Strategy and Tactics
November 6, 1:15-2:30 p.m.

Darcy Helmick is the land manager for Simplot Land and Livestock, managing all public land activities for Simplot entities. She works with ranch managers and public land management agencies to manage grazing on public lands. Helmick collaborates with agencies to protect and enhance wildlife and special status species habitat while maintaining viable ranching operations on public lands. Helmick also serves for four different Rangeland Fire Protection Association and is the public lands chair for the Idaho Cattle Association. She is a graduate of the University of Idaho and Leadership Idaho Agriculture and is currently pursuing a Masters of Public Administration with an emphasis on Natural Resource and Environmental Policy at Boise State University.

*Abstract: The nature of RFPAs enable us to structure our response to fire in a different manner than federal, state of rural fire departments. As rangeland fire protection associations, our priority is the rangeland. The goal of our RFPAs is rapid response to any fire within our area – because within our area a fire outside of sagebrush can become a fire in sagebrush within a few hours. There are pressures and challenges that present themselves due to pressure to conserving sagebrush steppe habitat. In order to protect a lot, we sometimes have to sacrifice a little. Special management designations and federal environmental laws can constrain our fire suppression response. Cooperation, coordination and communication are key within our organization, and in working with our federal, State and Rural Fire Department partners. And we have suggestions for potential changes to fire policy that would make it easier to protect and even enhance sage grouse habitat.*

**Mike Pellant**

Moderator of Presentations
After the Fire – What Works, What Needs to Change
November 6, 2:45-4:15 p.m.

Mike Pellant is a rehired annuitant for the BLM National Office focusing on Sage-grouse habitat assessments and restoration. Prior to retiring from BLM late last year, he was the Coordinator for the BLM's Great Basin Restoration Initiative from 2003 until December 2013. He has been active in native plant restoration and fire resistant vegetation development as the project lead for the BLM's Intermountain Greenstripping and Restoration project from 1987 to 2003 and more recently as the program lead for the regional Great Basin Native Plant Selection and Increase Project. He is also on the steering committees for the JFS's Great Basin Fire Science Delivery Project and the JFS's SageSTEP project. For five years, he served as a technical specialist on the US State Department's delegation to the United Nations Convention to Combat Desertification. His career with BLM started in 1976 with the completion of B.S. and M.S. degrees in Range Science at Fort Hays State University in western Kansas. During his 38 year career with BLM he has also been involved in post-fire rehabilitation, range management, and the assessment and monitoring of land health.

**David Pyke**

Presenter
After the Fire – What Works, What Needs to Change
November 6, 2:45-4:15 p.m.

David Pyke received a BS in Range Management, an MS in Forest and Range Management, and a Ph.D. in Botany from Washington State University. In 1977, he began research on the population biology of cheatgrass and native plants within the Intermountain West and has continued to focus on these species and their ecosystems. He became a faculty member in the Range Science Department at Utah State University where he taught courses on vegetation analysis and population biology. In 1992, he began his federal research career with the Bureau of Land Management in Corvallis Oregon. Although the agency has changed from the BLM to USGS, his research has continued on rangeland assessments, fire ecology, native plant restoration and invasive plant management in sagebrush steppe ecosystems. He has published over 90 basic and applied science papers relating to these topics. Currently, he is an editor for two journals - Restoration Ecology and Oecologia.

***Abstract: Sagebrush Steppe Post-Fire Rehabilitation Projects: Using the Past to Guide the Future***

*Wildfires threaten sustainability of sagebrush steppe ecosystem. Post-fire seedings have been used as tools for rehabilitating these ecosystems, but a thorough evaluation of their effectiveness has never been done. We took two approaches, a synthesis of monitoring reports and a field study to examine success. Both approaches provided insights into the importance of elevation and precipitation on rehabilitation effectiveness. Second, aerial seedings were less effective than drill seedings. Third, mixing native with introduced perennial grasses resulted in native plant declines. Fourth, arid areas may require multiple seedings to improve success since weather is unpredictable. Using the most appropriate techniques in combination with matching seed collection locations with rehabilitation locations has shown promise with some species. Post-seeding livestock management that optimizes plant growth and survival is important for reducing invasive annual grasses. As new approaches for post-fire rehabilitation are implemented, quantitative standardized monitoring will aid in determining future effectiveness.*

**Jeff Rose**

Presenter
After the Fire – What Works, What Needs to Change
November 6, 2:45-4:15 p.m.

Jeff Rose began his career in 1988 as a research associate at the Eastern Oregon Agricultural Research Center where he worked on a number of projects related to fire history and ecology of sagebrush shrublands and juniper woodlands. After 11 years with the research center, Rose joined the BLM as a Fire Ecologist for the Burns Interagency Fire Zone in Hines, Oregon. As the Fire Ecologist, Rose was primarily responsible for planning, implementing and monitoring fuels treatment and emergency stabilization and rehabilitation projects within sagebrush, juniper and ponderosa pine ecosystems. In 2009, Rose accepted a position as the Healthy Lands Coordinator for Oregon and Washington. In that position he worked to prioritize and coordinate Healthy Lands Initiative projects across Oregon and Washington and worked on the Northern Great Basin Ecoregional Assessment pilot project. Rose is currently the Associate District Manager for the BLM Burns District.

***Abstract: Application of Current Research in Post-fire Management***

*Sagebrush and associated vegetation is capable of surviving a variety of soil and climatic conditions across the western U.S. Land managers need to couple past experience with the available scientific information to maximize success because of this variability. No one scientific paper supplies all the answers across the 422,000 mi$^2$ of sagebrush ecosystems. Similarly, past experiences may or may not transfer to other locations, or be repeatable in the same location year to year. Active participation of BLM land managers in the scientific process will help to improve the quality of scientific information, and the development of management actions. Constant and effective communication between managers and researchers is vital to success and there are currently several locations across the BLM where this is occurring. The presentation will discuss some limitations, potential solutions and current projects related to successfully implementing and applying research to post-fire management activities.*

**Jay Kerby**

Presenter
After the Fire – What Works, What Needs to Change
November 6, 2:45-4:15 p.m.

Jay Kerby is the Southeast Oregon Project Manager for The Nature Conservancy in Oregon. He received a B.S. from Oregon State University (2000) and a M.S. from Oklahoma State University (2002). Prior to joining The Nature Conservancy, he worked as a research graduate assistant and a faculty research associate at Oklahoma State University studying interactions between fire and grazing in temperate and semi-arid grasslands. In his current role, Kerby cooperates with scientists researching restoration of degraded sagebrush-steppe, engages conservation stakeholders on synthesis and incorporation of current state-of-knowledge into land management planning and conservation prioritization, and supervises restoration and management of three Conservancy nature preserves. He currently participates in numerous collaborative efforts in southeast Oregon, including but not limited to: the Fire and Invasives working groups for Oregon's SageCon Partnership, the High Desert Partnership board of directors, the Beaty's Butte Working Group, and the Harney Basin Wetlands Initiative.

***Abstract:*** *Success rates reseeding native species on arid sagebrush-steppe may be near 10%. Until recently, restoration seeding has largely adhered to traditional agronomic principles, focusing on changes to plant materials and farming technologies. Recent seedling population demography research shows that seedling emergence may be a critical and limiting population bottleneck. Barriers to seedling survival during emergence are numerous and often spatially and temporally heterogeneous. However, identification of ecological barriers empowers development of engineering and management solutions tailored to overcome predictable obstacles to emergence. A partnership between ecologists with the USDA-Agricultural Research Service, The Nature Conservancy, and agri-business envisions a new approach to restoration seeding that emulates precision agriculture by melding spatial predictions of barriers to seedling survival, principles of plant ecology, and innovative seed enhancement technologies. Strategic deployment of "Precision Restoration" would target seed enhancements to portions of the landscape where they facilitate native seedlings overcoming ecological barriers to survival.*

### John Cissel

Moderator of Presentations
On the Horizon – Potential New Tools to Improve Rangeland Health
November 6, 4:15-5:15 p.m.

John Cissel has lived and worked in Idaho and Oregon for almost 35 years in a variety of positions responsible for connecting science with land and resource management. He is currently the Program Director for the Joint Fire Science Program, a national, interagency, applied fire science program headquartered in Boise, ID. He previously worked as a Science Coordinator for the BLM-Oregon State Office, for Oregon State University as the Forest Director for the HJ Andrews Experimental Forest, and for the Forest Service as the Science Coordinator for the HJ Andrews science-management partnership.

Cissel has a B.S. in Forestry from Michigan State University, a M.S. in Forest Management and Operations Research from Penn State University, and has completed additional coursework in forest dynamics and plant ecology at Oregon State University and University of Washington.

### Susan Meyer

Presenter
On the Horizon – Potential New Tools to Improve Rangeland Health
November 6, 4:15-5:15 p.m.

Dr. Susan Meyer is a Research Ecologist with the US Forest Service Rocky Mountain Research Station. She works at the Shrub Sciences Laboratory in Provo, Utah, where she has spent almost thirty years investigating research questions associated with ecological restoration of native plant communities. Her primary area of expertise is seed and seedling ecology, including modeling environmental control of dormancy, germination and establishment. She has published extensively on the establishment ecology of regionally dominant shrubs, including big sagebrush, as well as on numerous native grasses and forbs. Another research emphasis has been on seed bank dynamics and population biology of rare plants, including several federally listed species. Her recent research focus has been on the ecology and genetics of cheatgrass (*Bromus tectorum*) in the Great Basin and its interactions with the diverse community of fungal pathogens that exploit it.


***Abstract: Cheatgrass Die-off as a Restoration Opportunity***

*Cheatgrass (Bromus tectorum) is a major obstacle to sagebrush steppe restoration because of competitive effects. Our goal is to use naturally-occurring soilborne pathogens to reduce cheatgrass competition. Fungal pathogens play a major role in regulating cheatgrass abundance, an effect most apparent in 'die-off' areas, where cheatgrass exhibits stand failure. Die-offs are usually transient, with sparse stands establishing from the seed bank the following year. Die-offs are likely mediated through fungistasis, the suppression of fungal pathogens by the microbial community in low-nutrient soils. Increased nutrients can 'wake up' the pathogens, causing stand failure, but nutrients are depleted the following year. Pathogens, though still present, cannot cause epidemic disease. We seeded native grasses into a previous-year die-off and obtained increased establishment success relative to a non-die-off area. This suggests that die-offs are restoration opportunities. If we can create die-offs by manipulating soil nutrient levels, we can choose where these opportunities will occur.*

### Matt Reeves

On the Horizon – Potential New Tools to Improve Rangeland Health
November 6, 4:15-5:15 p.m.

Matt Reeves is a Post-Doc Research Ecologist with the USDA, Forest Service, Rocky Mountain Research Station, in Missoula Montana. He received his BS in Range Management, MS in Environmental Resources and his PhD in Remote Sensing and Ecological modeling of non-forest and agricultural environments. As a rangeland professional, he uses remote sensing, simulation modeling and geographic analysis to study effects of climate change, develop decision support systems and conduct large area inventory and monitoring.

***Abstract: "Simulation Modelling and Emerging Technologies for Understanding and Prioritizing Management Actions"***

*Variable climate and ecological response to disturbance add significant uncertainty to project planning. Simulation modeling reduces uncertainty by estimating management effects and how treatments can be efficiently distributed across the landscape. The Rangeland Vegetation Simulator (RVS) is designed to estimate growth, succession, fuels, and effects of disturbance of non-forest systems. The RVS offers annual estimates of 1, 10, and 100 - hr fuel loads in addition to surface Fire Behavior Fuel Models, XML files for the FCCS system, and others. A planned unique feature of the RVS is use of state and transition models from Ecological Sites to guide estimates of vegetation succession. This process potentially provides novel decision support by quantifying the likelihood of sites reaching ecological thresholds. Applications of the RVS include decision support for stocking rate calculations, fuel management, and identification of restoration opportunities. The RVS is scheduled for provisional release in 2015.*

### April Hulet

Moderator of Presentations
On the Horizon – Potential New Tools to Improve Rangeland Health
November 6, 4:15-5:15 p.m.

April Hulet is a postdoctoral research ecologist with the USDA-ARS at the Eastern Oregon Agriculture Research Center. She obtained her PhD from Brigham Young University working in sagebrush communities threatened by pinyon-juniper woodland. Her current research focus is on restoring sagebrush after wildfire using various seeding methods that include seed enhancement technologies, and understanding mechanisms by which fire affects native bunchgrass plants within Wyoming big sagebrush plant communities.

***Abstract: "The Use of Seed Enhancement Technologies to Improve Sagebrush Establishment"***

*April Hulet, Matthew D. Madsen, Kirk W. Davies, and Chad S. Boyd*

*Sagebrush restoration after wildfires has had limited success, and success likely varies considerably by method, site characteristics and interactions between them. Seed enhancement technologies, such as the "seed pillow" which is comprised of a pillow-shaped agglomeration of absorbent materials and other beneficial additives, has been shown to provide appropriate sagebrush seed coverage and enhance conditions for seed germination and growth for both broadcast and drill seeding methods. In a study comparing different sagebrush restoration methods (broadcast seeding, broadcast seeding and packing, planting sagebrush seedlings, seed pillows, and natural recovery) across elevation gradients (4000 to > 7000 ft), preliminary results suggest that seed pillows improve sagebrush established when compared to natural recovery by 8-fold. This study is being repeated in 2014 and will be monitored for multiple years with the expectation that this information will help land managers successfully restore sage-grouse habitat after wildfires by pairing restoration methods with site characteristics.*

### Laurie Kurth

Moderator
Senior Policy Group
November 7, 8:30-10:30 a.m.

Since joining the US Forest Service in 2006, Laurie Kurth has held three positions in fire management. She has been working on program budget, ecology, and policy issues in the Washington Office for the past two years. Previously she worked as a lead fire analyst with the Wildland Fire Management Research Development and Applications program and as a fire behavior analyst with the Fire Modeling Institute at the Missoula Fire Sciences Laboratory. Prior to her tenure with the US Forest Service, Kurth was a plant ecologist for the National Park Service focusing on fire ecology research and management, vegetation restoration, and vegetation management programs while stationed at Mount Rainier, Zion, and Glacier National Parks. Kurth has a B.S. degree in botany from Ohio University and an M.S. degree in biological sciences from the University of Chicago. Outside of work Kurth enjoys kayaking in Thailand and trekking in Nepal.

### Jim Lyons

Senior Policy Group
November 7, 8:30-10:30 a.m.

Jim Lyons joined the Department of the Interior in 2013 as Counselor to the Assistant Secretary for Land and Minerals Management. Earlier this year, Jim became the Deputy Assistant Secretary for Land and Minerals Management where he focuses on public lands, energy, forestry, and landscape-level conservation. In addition, Lyons was directed by the Secretary to help with development of a strategy to conserve the Greater Sage-Grouse.

Lyons was USDA Undersecretary for Natural Resources and Environment during the Clinton administration. He played a key role in developing the 2001 Roadless Rule, the 1994 Northwest Forest Plan, and in new rules to guide national forest management. Jim also initiated some of the first regional ecosystem assessments across the West. In 2000, he worked with Interior Deputy Secretary David Hayes to develop a new strategy for addressing wildfires following the devastating fires that summer.

Prior to joining the Clinton Administration, Lyons was senior staff on the Committee on Agriculture in the U.S. House of Representatives. He has a Master's degree from the Yale School of Forestry and Environmental Studies, where he has taught since 2000.

### Steve Ellis

Senior Policy Group
November 7, 8:30-10:30 a.m.

Steve Ellis began his federal career when he joined Bureau of Land Management's (BLM's) Burley District in southern Idaho as a forester. Since then, he has served in a variety of positions with the BLM and U.S. Forest Service, including Area Manager in Idaho's Shoshone District, Associate District Manager in Las Vegas, District Manager of Oregon's Lakeview District, and Acting BLM Deputy State Director in Alaska. He has served as Forest Supervisor of the Fremont-Winema National Forest and Forest Supervisor of the Wallowa-Whitman National Forest. Ellis also worked five years for BLM in Washington, D.C., including one year as a Congressional Fellow in the U.S. Senate. Before beginning his fulltime federal career, he worked as a seasonal firefighter and a forest research technician for the Forest Service while attending college. Ellis holds a B.S. in Forestry from Southern Illinois University at Carbondale and a M.S. in Geography (Soils and Atmospheric Science) from Northern Illinois University at DeKalb.

### Jim Douglas

Senior Policy Group
November 7, 8:30-10:30 a.m.

Jim Douglas is the Director of the Office of Wildland Fire working for the Deputy Assistant Secretary for Public Safety, Resource Protection, and Emergency Services in the Department of the Interior. The Office is responsible for the Department's wildland fire budget; coordinates and leads the development of national policy and programs; and works closely with a number of interagency and intergovernmental wildland fire governance groups, including federal, state, tribal, and local officials. Douglas has been with Interior since 1979, working in a variety of positions in budget, policy, and fire and emergency management. He has served as the Department's fire policy coordinator, director of emergency management, and the BLM Assistant Director for Fire and Aviation Management. He has participated in numerous wildland fire budget and policy activities.

Douglas has an A.B. in Political Science from Grinnell College and a Masters in Public Policy from the University of Michigan.

### Tami DeFries

Senior Policy Group
November 7, 8:30-10:30 a.m.

Tami Defries, Associate Manager, BLM Alaska Fire Service (AFS) began her career in 1986 as a member of a USFS horse pack trail crew. It was this exposure to the qualities of the Selway-Bitteroot landscape that locked her into the wildland fire path. In subsequent years she served as a crew member on Interagency Hotshot Crews on the Gila National Forest and Sequoia – Kings Canyon National Park. In 1990, she made her move to Alaska serving in various positions: fire specialist, aerial detection and mapping specialist, aviation specialist, and initial attack dispatcher. In 1999, Tami made the career change into management serving as the AFS Fire Management Officer for Military lands. She has been in her current position as the AFS Associate Manager since 2012.

### Tim Griffiths

Senior Policy Group
November 7, 8:30-10:30 a.m.

Bio not available at time of publication.

### James Hubbard

Senior Policy Group
November 7, 8:30-10:30 a.m.

James E. Hubbard has been the U.S. Forest Service Deputy Chief for State and Private Forestry since 2005. Hubbard previously served as the Director of the Office of Wildland Fire Coordination with the Department of the Interior.

Hubbard was a member of the Colorado Forest Service for over 34 years before coming to Federal Service in 2004. Jim was a leader in the National Association of State Foresters (NASF) and Chaired the Council of Western State Foresters. He provided national leadership in the NASF through his many committee assignments, including the Chairman of the Legislative Committee. As State Forester he held Governor appointed positions on numerous natural resources committees and chaired the working group on Wildland-Urban Interface Fire as will as the Governor's Conference on Forest Health. He was a member of the National Research Council Study on non-federal forestry in the United States. He holds a Bachelor of Science degree in Forest Management from Colorado State University and is an Honor Alum of the College of Natural Resources.

**Steve Knick**

Senior Policy Group
November 7, 8:30-10:30 a.m.

Steve Knick is a Supervisory Research Ecologist with the U.S. Geological Survey at the Forest and Rangeland Ecosystem Science Center in Boise, Idaho. He has studied disturbance dynamics of shrub steppe systems for over 20 years with a focus on bird communities. His research involves multiple scales from local site-specific changes to broad regional influences. He currently is modeling range-wide connectivity in sage-grouse populations and migratory connectivity of passerine birds between breeding and wintering ranges. Steve was the lead editor for the Studies in Avian Biology volume on greater sage-grouse used by the U.S. Fish and Wildlife Service in their 2010 ESA listing decision and a primary author on the conservation assessment in the 2005 decision. He continues to provide science understanding for the forthcoming 2015 decision and works with NGOs, various committees and working groups, state and federal agencies, and the U.S. Department of Interior on sagebrush issues.

**Kris Sarri**

Senior Policy Group
November 7, 8:30-10:30 a.m.

Kris Sarri has held several critical roles with the Administration. Prior to joining the Department, Kris was the Associate Director for Legislative Affairs at the Office of Management and Budget in the Executive Office of the President. Kris also served as the Deputy Director of Policy and Strategic Planning at the Department of Commerce. She spent a number of years on Capitol Hill working for U.S. Senator Jack Reed and the Senate Commerce Committee, and the bipartisan Northeast-Midwest Senate Coalition. Kris received a Bachelor of Arts in Science from Washington University and her Master of Science in Natural Resources and Master of Public Health from the University of Michigan.

**Cally Younger**

Senior Policy Group

Cally Younger has lived in Idaho for fourteen years. She received her Bachelor's degree from Northwest Nazarene University in Nampa, Idaho and her Juris Doctorate from the University of Idaho. She began working at the Governor's Office of Species Conservation as a policy advisor and legal counsel in 2012. She worked primarily on issues within the sage-steppe ecosystem, including Slickspot Peppergrass and the Greater Sage-Grouse. In January 2014, she became Associate Counsel to Governor C.L. "Butch" Otter. In April, Governor Otter appointed her as Public Records Ombudsman, tasking her with auditing Idaho's public records request process. She works on Agriculture, Natural Resources, public records, and legal issues. She continues to work on Greater Sage-Grouse policy as well.

**Daniel Schory**

Senior Policy Group

Daniel Schory is a Program Examiner at the White House Office of Management and Budget (OMB), where he oversees budgetary, regulatory, and legislative policy for Department of the Interior agencies – including over $4 billion in annual spending at the Bureau of Land Management, Office of Surface Mining, Reclamation, and Enforcement, Office of Wildland Fire, and other departmental programs. Previously, Schory served across Federal, State, and local governments, including the Colorado Energy Office, Indiana Utility Regulatory Commission, and U.S. Environmental Protection Agency, where he developed regulatory and investment strategies in the water, air, and energy sectors. Schory is a graduate of Indiana University's School of Public and Environmental Affairs, receiving a M.S. in Environmental Science, M.P.A. in Public Policy, and B.S. in Public Affairs.

### Bud Cribley

Moderator

Senior Fire Operations Group
November 7, 8:30-10:30 a.m.

As the BLM-Alaska State Director, Bud Cribley leads close to 700 employees in multi-use management of over 72 million surface acres throughout the state. He oversees an organization with multiple national priorities. These range from oversight of the Trans-Alaska Pipeline to managing the nearly 23-million-acre National Petroleum Reserve in Alaska to operating the largest fire suppression program in the Department of Interior through the Alaska Fire Service.

Cribley has been contributing to the BLM since 1975, beginning in the western states of Arizona, Idaho, Montana, Utah, Nevada and Colorado. Cribley came to Alaska in 2010 from the BLM headquarters in Washington, D.C., where he was a senior specialist with the Wild Horse and Burro program, a Congressional Fellow in the Senate for one year, and Deputy Assistant Director for Renewable Resources and Planning. Cribley holds a BS in Forestry from Stephen F. Austin State University in Nacogdoches, Texas, and enjoys hunting, fishing, and exploring Alaska.

### Nancy Haug

Senior Fire Operations Group
November 7, 8:30-10:30 a.m.

Nancy Haug began her career with the BLM in the Boise, Idaho, District in 1990. After several years as the volunteer program coordinator, where she worked with BLM's many partners on projects ranging from bitterbrush planting to constructing trails, Haug accepted a writer-editor position in the BLM's Office of Fire and Aviation at the National Interagency Fire Center (NIFC). At NIFC, Haug worked in Public Affairs as a writer-editor, and then a public affairs specialist coordinating and communicating with partner agencies, the Departments of Interior and Agriculture, the media and the public on information and issues related to wildland and prescribed fire. In 2005, she transitioned into the assistant field manager position for minerals and lands in BLM Wyoming's Kemmerer Field Office, and in 2006 she accepted the Baker City Field Manager position in Baker City, Oregon. In 2009, Haug moved to California where she currently resides and works as the Northern California district manager.

### Beth Lund

Senior Fire Operations Group
November 7, 8:30-10:30 a.m.

Beth Lund began her career in California on the Lassen National Forest in 1976. She worked her way from fire-fighter to fire program manager, all the time with the US Forest Service. She has 39 years working in Fire Operations. Her current position is Deputy Director of Fire & Aviation for the Intermountain Region of the Forest Service, based out of Ogden Utah.

Lund has served on Great Basin Incident Management Teams for the last 28 years, currently serving as Incident Commander on one of the two Type 1 Incident Commanders in the Great Basin.

### Ron Dunton

Senior Fire Operations Group
November 7, 8:30-10:30 a.m.

Ron Dunton has served as acting Assistant Director for Fire and Aviation and the National Interagency Fire Center in Boise since May 2014. Prior to that time, Ron served the BLM in Alaska as the Deputy State Director for Lands and Cadastral Survey, overseeing the Bureau's largest land survey and conveyance programs. In that capacity, he provided oversight to the Branch of Pipeline Monitoring and served as the Authorized Officer for BLM's pipeline office. Prior to leading the Office of Pipeline Monitoring, Dunton served as BLM Alaska's Gas Pipelines Project Manager. Dunton's previous BLM experience includes Acting Director for the Office of Wildland Fire in Washington, D.C., Deputy State Director for Lands and Resources in New Mexico, National Fire Program Manager in Idaho, Area Manager and Assistant Area Manager in New Mexico, and Fire Supervisor/Manager in Alaska and New Mexico. Dunton also worked throughout northern Alaska during the 1970s and 1980s with the Alaska Fire Service.

**Rex McKnight**

Senior Fire Operations Group
November 7, 8:30-10:30 a.m.

Rex McKnight began his career with the BLM in 1977 as an engine crewmember on the Montrose District in Colorado, working in a variety of fire suppression and fire management positions. McKnight moved to Alaska in 1985 and began work at the Alaska Fire Service in a variety of fire management positions and participated on Type 1 and Type 2 Incident Management Teams. As a member of the Alaska Type 1 IMT, McKnight supported the planning and logistical efforts for the Fire Department of New York City after the terrorist attack on the World Trade Center. In May 2006, he started working in his current position as the State Fire Management Officer for Nevada BLM. McKnight's assignment as Acting Associate State Director at the Nevada State Office (2011-2012) provided him with a greater understanding of the role that BLM plays in providing protection of the natural resources and economic opportunities through the country.